



ISO17987 LIN 2.1/SAE J2602 Transceiver

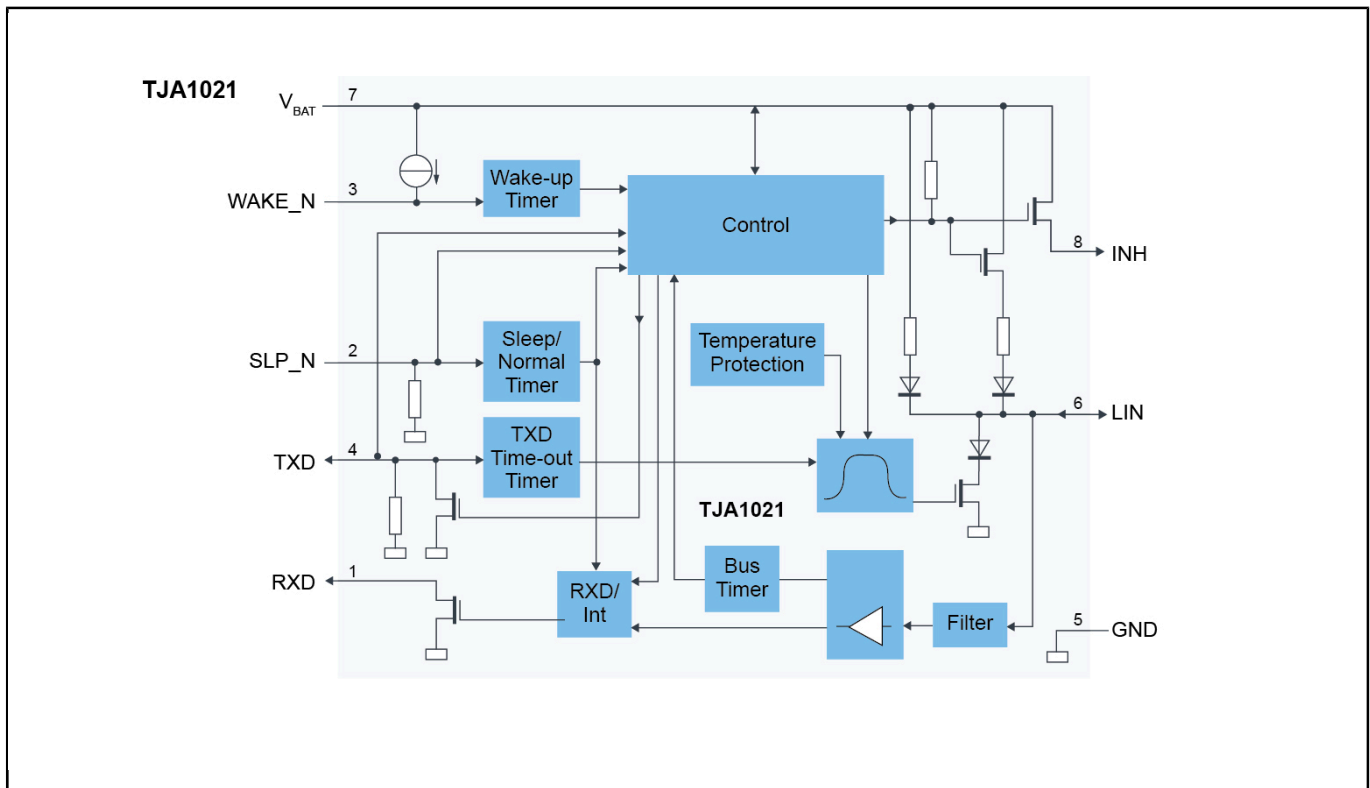
TJA1021

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The TJA1021 is the interface between the local interconnect network (LIN) leader/follower protocol controller and the physical bus in a LIN. It is primarily intended for in-vehicle sub-networks using baud rates from 1 kBd up to 20 kBd and is compliant with LIN 2.0, LIN 2.1, LIN 2.2, LIN 2.2A, SAE J2602 and ISO 17987-4:2016 (12 V). The TJA1021 is pin-to-pin compatible with the TJA1020 and MC33662(B).

The transmit data stream of the protocol controller at the transmit data input (TXD) is converted by the TJA1021 into a bus signal with optimized slew rate and wave shaping to minimize electromagnetic emission (EME). The LIN bus output pin is pulled HIGH via an internal termination resistor. For a commander application, an external resistor in series with a diode should be connected between pin INH or pin VBAT and pin LIN. The receiver detects the data stream at the LIN bus input pin and transfers it via pin RXD to the microcontroller. In Sleep mode, the power consumption of the TJA1021 is very low. In failure modes, the power consumption is reduced to a minimum.

TJA1021 Block Diagram



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